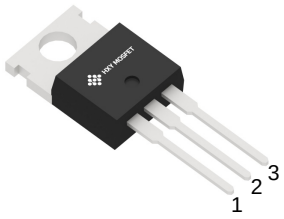
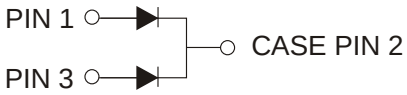
VSMBR2090CT-M3

Schottky Rectifier Diodes



TO-220C(TO-220AB-3)



Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Good for switching mode application

Maximum Ratings (Ta=25°C unless otherwise noted)

Type Number	Limit	Units
Maximum Recurrent Peak Reverse Voltage	100	V
Maximum RMS Voltage	70	V
Maximum DC Blocking Voltage	100	V
Maximum Average Forward Rectified Current at Tc=125°C	20	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200	A
Maximum Instantaneous Forward Voltageat 10A	0.85	V
Maximum DC Reverse Current Ta=25°C	0.02	mA
at Rated DC Blocking Voltage Ta=100°C	2	mA
Typical Junction Capacitance (Note1)	500	pF
Typical Thermal Resistance RθJC (Note 2)	2.5	°C/W
Operating Temperature Range T_J	-65 —+150	°C
Storage Temperature Range T_{STG}	-65 — +150	°C

NOTES:
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

Typical Characteristics

Fig.1-Typical Forward Current Rating Curve

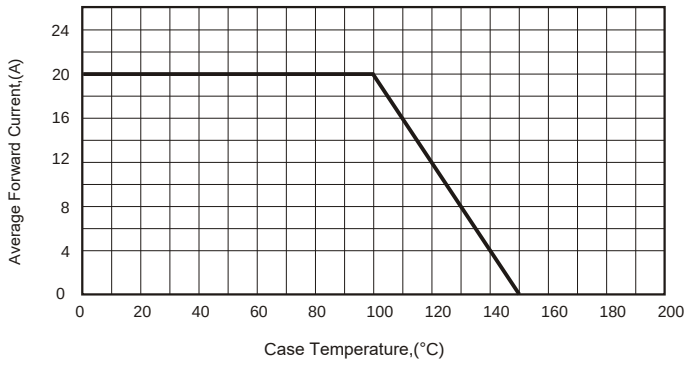


Fig.2-Typical Forward Characteristics

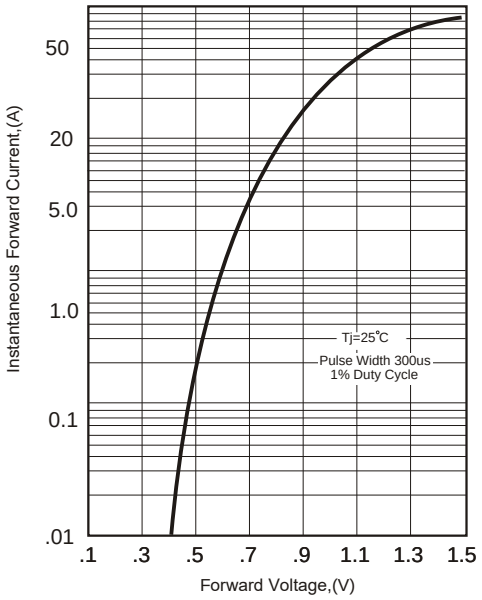


Fig.3-Maximum Non-repetitive Forward Surge Current

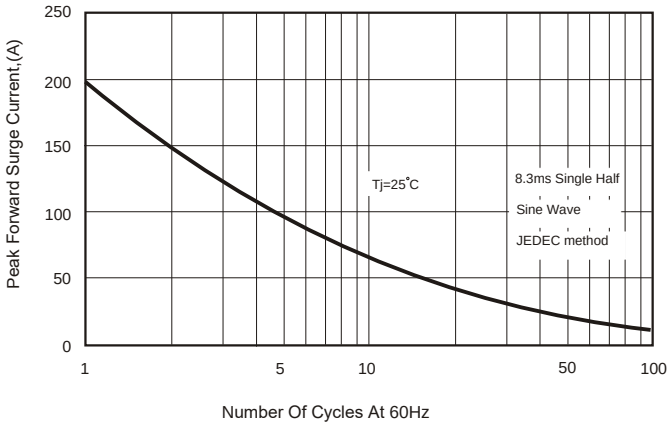


Fig.4-Typical Junction Capacitance

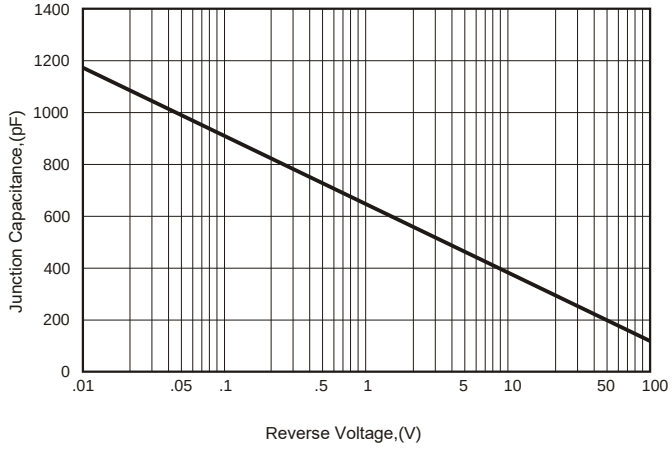
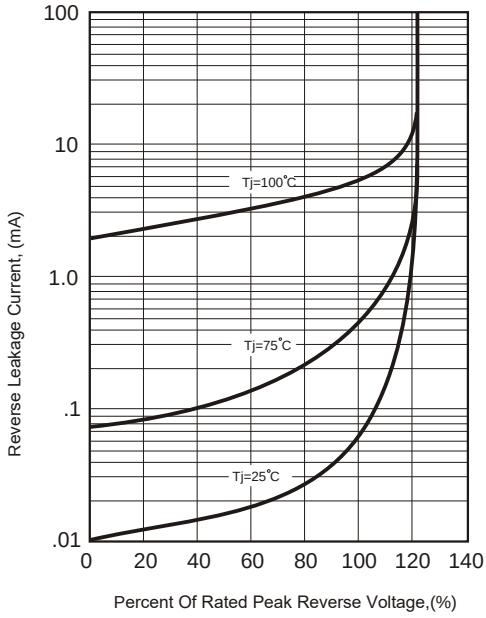
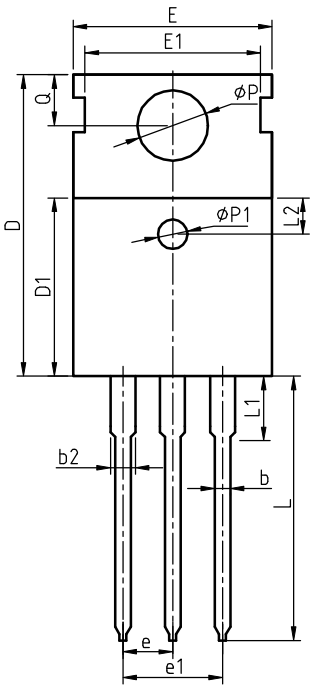
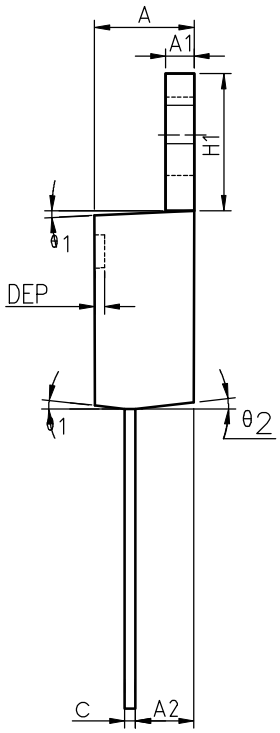


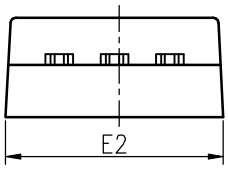
Fig.5 - Typical Reverse Characteristics



Package Information
TO-220C(TO-220AB-3)







COMMON DIMENSIONS

SYMBOL	MIN	NOM	MAX	MIN	NOM	MAX
A	4.40	4.57	4.70	0.173	0.180	0.185
A1	1.27	1.30	1.33	0.050	0.051	0.052
A2	2.35	2.40	2.50	0.093	0.094	0.098
b	0.77	0.80	0.90	0.030	0.031	0.035
b2	1.17	1.27	1.36	0.046	0.050	0.054
c	0.48	0.50	0.56	0.019	0.020	0.022
D	15.40	15.60	15.80	0.606	0.614	0.622
D1	9.00	9.10	9.20	0.354	0.358	0.362
DEP	0.05	0.10	0.20	0.002	0.004	0.008
E	9.80	10.00	10.20	0.386	0.394	0.402
E1	-	8.70	-	-	0.343	-
E2	9.80	10.00	10.20	0.386	0.394	0.402
e		2.54	BSC		0.100	BSC
e1		5.08	BSC		0.200	BSC
H1	6.40	6.50	6.60	0.252	0.256	0.260
L	12.75	13.50	13.65	0.502	0.531	0.537
L1	-	3.10	3.30	-	0.122	0.130
L2		2.50	REF		0.098	REF
P	3.50	3.60	3.63	0.138	0.142	0.143
P1	3.50	3.60	3.63	0.138	0.142	0.143
Q	2.73	2.80	2.87	0.107	0.110	0.113
θ1	5°	7°	9°	5°	7°	9°
θ2	1°	3°	5°	1°	3°	5°
θ3	1°	3°	5°	1°	3°	5°

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